

ADDITIONAL NOTES ON THE GENUS AVICENNIA. III

Harold N. Moldenke

AVICENNIA L.

Additional & emended bibliography: N. J. Anderss., Vet. Akad. Handl. Stockh. 1853: 201. 1854; N. J. Anderss., Galap. Veg. 82. 1859; A. S. Hitchc., Ann. Rep. Mo. Bot. Gard. 4: 118. 1893; Robinson & Greerm., Am. Journ. Sci. 150 [ser. 3, 50]: 147. 1895; B. L. Robinson, Proc. Am. Acad. 38: 194. 1902; C. B. Clarke in J. Schmidt, Bot. Tidsskr. 26: 175. 1904; Rendle, Notes Fl. Bermuda 12. 1937; V. S. Rao, Journ. Indian Bot. Soc. 31: [297] & 310--313, fig. 59--63. 1952; Moldenke, Phytologia 5: 24, 368, & 508. 1957; S. A. Khan, Pakist. Journ. Forest. 11: 43--45. 1961; Rao, Aggarwal, & Mukerjee, Bull. Bot. Surv. India 5: 143--146, 307, 311, 315, & 320. 1963; Donselaar, Wentia 14: 15. 1965; Naurois & Roux, Bull. Inst. Fr. Afr. Noire A.27: 843--854, ph. 1--4. 1965; T. C. Whitmore, Guide Forests Brit. Solomon Isls. 168. 1966; Jiménez, Supl. Cat. Fl. Doming. 1: 222. 1966; Hemming, Proc. Linn. Soc. Lond. 177 (2): 235. 1966; MacNae, Austral. Journ. Bot. 14: 67, 70--78, 84--90, 92--95, 97--100, & 104, pl. 2 & 3. 1966; Van Steenis-Kruseman, Fl. Males. Bull. 4: xlviii. 1967; Paijmans, CSIRO Land Research Ser. 17: 149 & 155. 1967; J. C. Saunders, CSIRO Land Research Ser. 17: 175. 1967; Moldenke, Phytologia 14: 326--336. 1967.

AVICENNIA AFRICANA P. Beauv.

Additional bibliography: Naurois & Roux, Bull. Inst. Fr. Afr. Noire A.27: 843--854, pl. 1--4. 1965; Moldenke, Phytologia 14: 326. 1967.

Additional illustrations: Naurois & Roux, Bull. Inst. Fr. Afr. Noire A.27: 843--854, pl. 1--4. 1965.

AVICENNIA ALBA Blume

Additional bibliography: Rao, Aggarwal, & Mukerjee, Bull. Bot. Surv. India 5: 307, 311, 315, & 320. 1963; T. C. Whitmore, Guide Forests Brit. Solomon Isls. 168. 1966; Moldenke, Phytologia 14: 309--310 & 329. 1967.

Rao, Aggarwal, & Mukerjee (1963) report that this species grows on light-gray or bluish-gray soil on Rameswaram Island, India, and that it is often stunted because the pneumatophores are axed by the natives for fuel; it is associated there with Salicornia and Arthocnemum.

AVICENNIA ALBA var. LATIFOLIA Moldenke

Additional bibliography: Moldenke, Phytologia 14: 309 & 310. 1967.

AVICENNIA EUCALYPTIFOLIA Zipp.

Additional bibliography: Moldenke, Phytologia 14: 309, 310, & 332. 1967.

AVICENNIA GERMINANS (L.) L.

Additional & emended bibliography: N. J. Anderss., Vet. Akad. Handl. Stockh. 1853: 201. 1854; N. J. Anderss., Galap. Veg. 82. 1859; A. S. Hitchc., Ann. Rep. Mo. Bot. Gard. 4: 118. 1893; Robinson & Greenm., Am. Journ. Sci. 150 [ser. 3, 50]: 147. 1895; B. L. Robinson, Proc. Am. Acad. 38: 194. 1902; C. B. Clarke in J. Schmidt, Bot. Tidsskr. 26: 175. 1904; Rendle, Notes Fl. Bermuda 12. 1937; Donselaar, Wentia 14: 15. 1965; Jiménez, Supl. Cat. Fl. Doming. 1: 222. 1966; Moldenke, Phytologia 14: 326—328 & 334—336. 1967.

Clarke (1904) reduces Bontia germinans L. to synonymy under Avicennia officinalis L. Robinson & Greenman (1895) refer to A. germinans as "Avicennia tomentosa Linn.", but this homonym is usually placed in the synonymy of A. marina (Forsk.) Vierh.

Additional citations: MEXICO: Tabasco: F. D. Barlow 28/11 (Mi). JAMAICA: Yuncker 17290 (Mi). GALAPAGOS ISLANDS: Charles: J. T. Howell 8841 (Gg—462969). Indefatigable: J. T. Howell 9125 (Gg—463073). James: J. T. Howell 9689 (Gg—462967).

AVICENNIA MARINA (Forsk.) Vierh.

Additional bibliography: Hemming, Proc. Linn. Soc. Lond. 177 (2): 235. 1966; MacNae, Austral. Journ. Bot. 14: 67, 70—78, 84—90, 92—95, 97—100, & 104, pl. 2 & 3. 1966; T. C. Whitmore, Guide Forests Brit. Solomon Isls. 168. 1966; Moldenke, Phytologia 14: 328—335. 1967.

Additional illustrations: MacNae, Austral. Journ. Bot. 14: pl. 2 & 3. 1966.

MacNae (1966) reports that in some parts of Australia this species grows in water of 90 percent salinity and forms extensive copses rarely more than waist high. He also suggests that the height attained by the species depends on the drainage qualities of the soil; specimens on well-drained banks close to streams are taller than those farther away. "Along most stretches of the eastern shores of Queensland where mangrove occur the most seaward zone of the trees is one of Avicennia marina. This zone is seldom more than one or two large trees in depth. In front, thickets of saplings and seedlings extend out on to the beach... Many of the seedlings at these lowest levels have their leaves covered by a layer of fine mud, deposited by the tide, and these seedlings soon die. It is to be suspected that this mud, since it has the same effect as deep shade, is responsible for the death of the saplings...Avicennia saplings die under the shade of their parent trees and can develop to maturity only if fully exposed to the sun. The trees themselves will die when Rhizophora or Bruguiera grow up through and overshadow them."

The flowers are described as "yellow" on Larsen, Smitinand, & Warncke 1220. These collectors found the plant growing in "loamy saline soil".

Additional citations: THAILAND: Larsen, Smitinand, & Warncke 1220 (Ac).